MC0135

HOSPITAL BUILDING NOTE

REHABILITATION CENTRE FOR PSYCHIATRIC PATIENTS

33

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Rehabilitation Centre for Psychiatric Patients

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An addendum to Appendix E of Hospital Building Note No. 2, *The Cost of Hospital Buildings*, which sets out cost recommendations for Rehabilitation Centre for Psychiatric Patients is supplied with this Building Note.

I. Scope

1. This Building Note gives guidance on the design of a rehabilitation centre for 60 or more psychiatric patients who are longer-term patients. They may come either from a psychiatric hospital or live in the community and attend as day patients. It does not apply to patients undergoing intensive treatment and initial rehabilitation, for whom provision will be made in a revise of published Building Note No. 5, Short Stay Psychiatric Unit. The term rehabilitation is used here to include all activities which develop the patient's ability to work, such as occupational therapy, and industrial/vocational training. Although the accommodation described would be suitable for both mentally ill and mentally subnormal patients, the activities carried out in the rehabilitation centre would be different.

2. This Building Note should be read in conjunction with Building Note No. 30, Accommodation for Psychiatric Patients. It should not be regarded as applying to Scotland where, as noted in paragraph 2 of Building Note No. 30, provision for the care of the mentally ill is based on different legislation.

II. General considerations

3. A centre is required for a comprehensive range of rehabilitation accommodation. This will usually be sited within a psychiatric hospital; only on very rare occasions should it be necessary to site the centre outside the curtilage of a hospital.

4. The range of possible activities in such a centre and the variety of spaces needed make it impossible to cover all the detailed implications of a rehabilitation centre in one Building Note. In order to provide a norm to which various plans can be related, this Building Note assumes an average group size of 15 patients. Ancillary requirements for storage, staff space, sanitary facilities etc. should be shared between at least two groups. The classification of activities into light, medium, and heavy work is related to the different space allowances per work place. These are described in detail in the Appendix which also gives schedules of accommodation with floor areas.

5. It is most important that the buildings should be capable of being used flexibly, since the nature of the work done in them may vary with changes in rehabilitation practice and industrial techniques. A demand for rehabilitation accommodation may have to be assessed against a planned reduction in the future numbers of patients. In such cases it is better to economise by erecting temporary buildings than to reduce the amount of rehabilitation space.

6. There are two principal components in a rehabilitation centre:

(*a*) *The administration and staff facilities* (other than those which may already be provided in the hospital administration centre). The full range of administration accommodation described in this Building Note may be required by some psychiatric hospitals or centres but certain others undergoing change or redevelopment will need only part of the range.

(*b*) *The patient work areas with storage and sanitary facilities.* These two components can be arranged to suit the type of patient, and the community and local participation in the work activities. The principal differences are in the disposition of the work spaces, i.e. whether they can all be grouped within one simple area, or whether the distinctions in activities and patient classification require separate areas. In many centres a proportion of both conditions will probably apply. (The term "workroom" should be interchangeable with "rehabilitation room".)

7. These factors must be considered at the initial stages of the building procedures, so that when a development plan is produced it is consistent with the evaluation of patient needs, the hospital, and the community.

8. There are three basic approaches to the design of a rehabilitation centre:

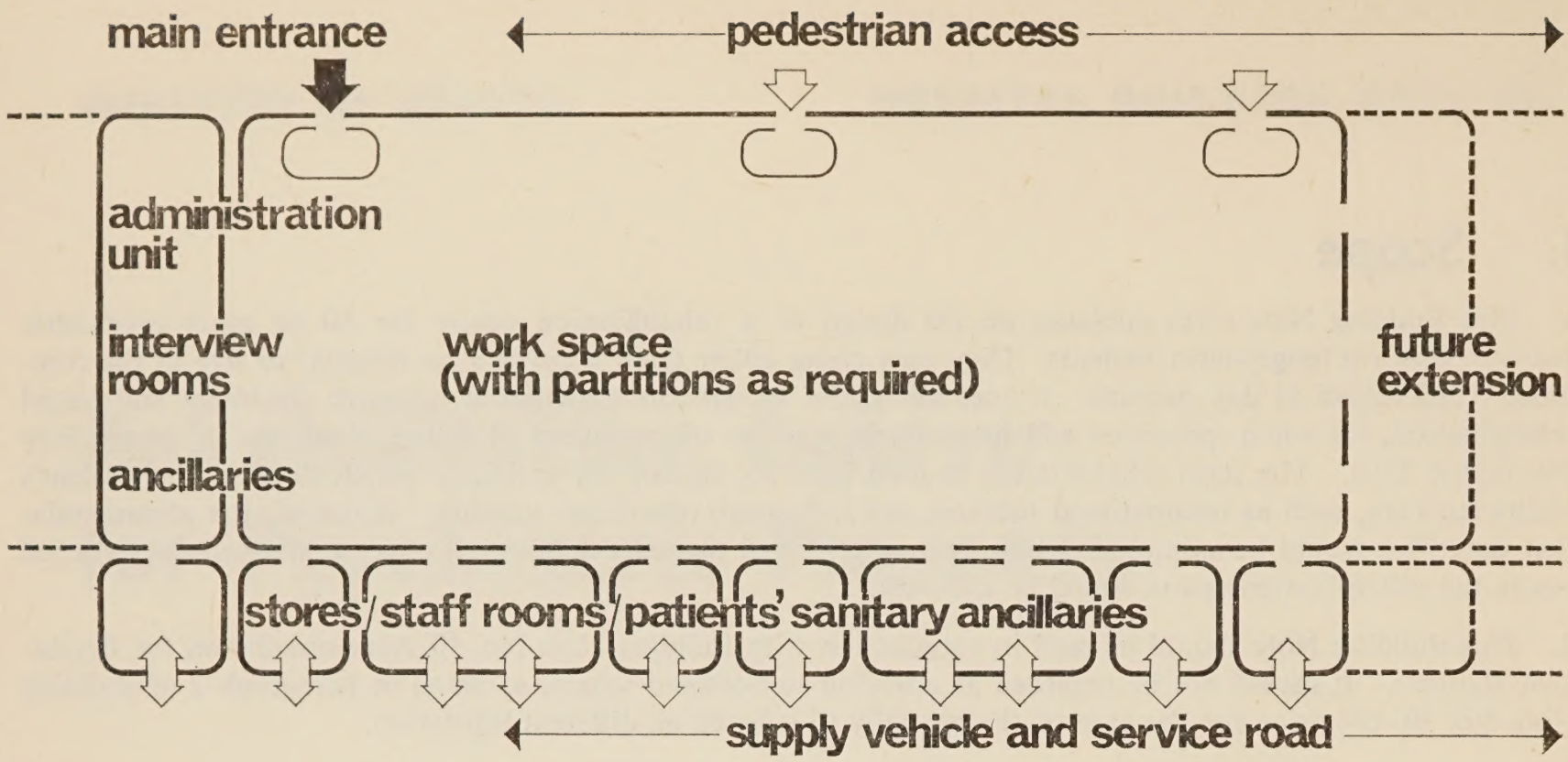
(i) a comprehensive single area for 60 or more patients;

(ii) a network of related but separate areas (each for 30 patients);

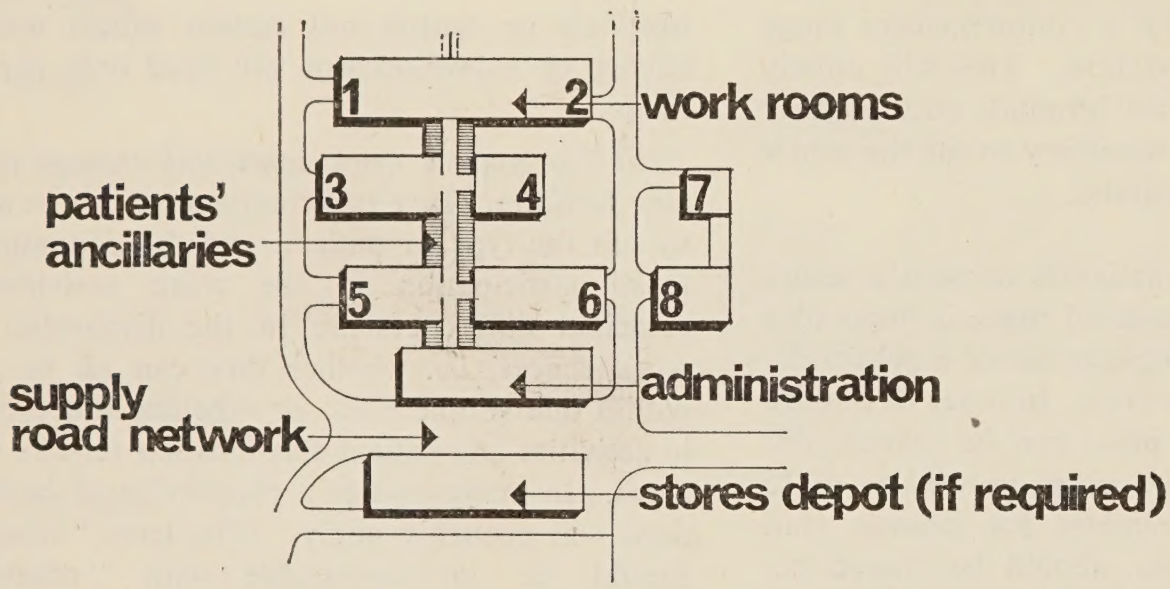
(iii) independent, self-sufficient areas (each for 30 patients).

(see Figure 1)

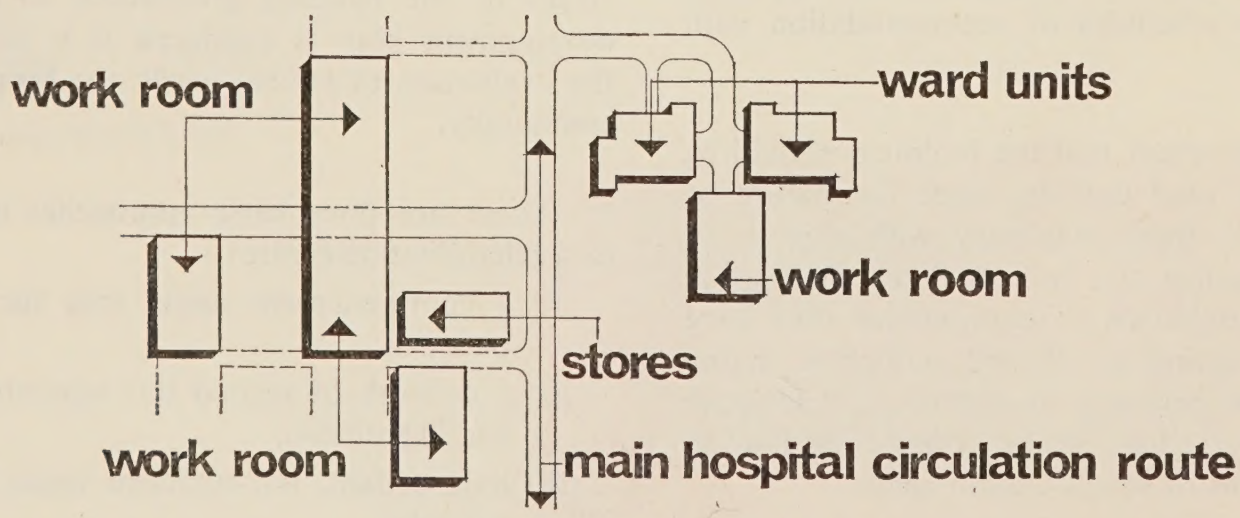
9. Types (ii) and (iii) with individual workrooms are described here only in general terms. Although the space provided per patient per activity remains the same in all cases, these types are not included in the cost allowance for this Building Note.



example (a) all workrooms form part of one comprehensive space



example (b) repetitive spaces linked to a central administrative unit



example (c) repetitive spaces which can be used independently if required

FIGURE 1 DIAGRAMMATIC LAYOUTS FOR A REHABILITATION CENTRE

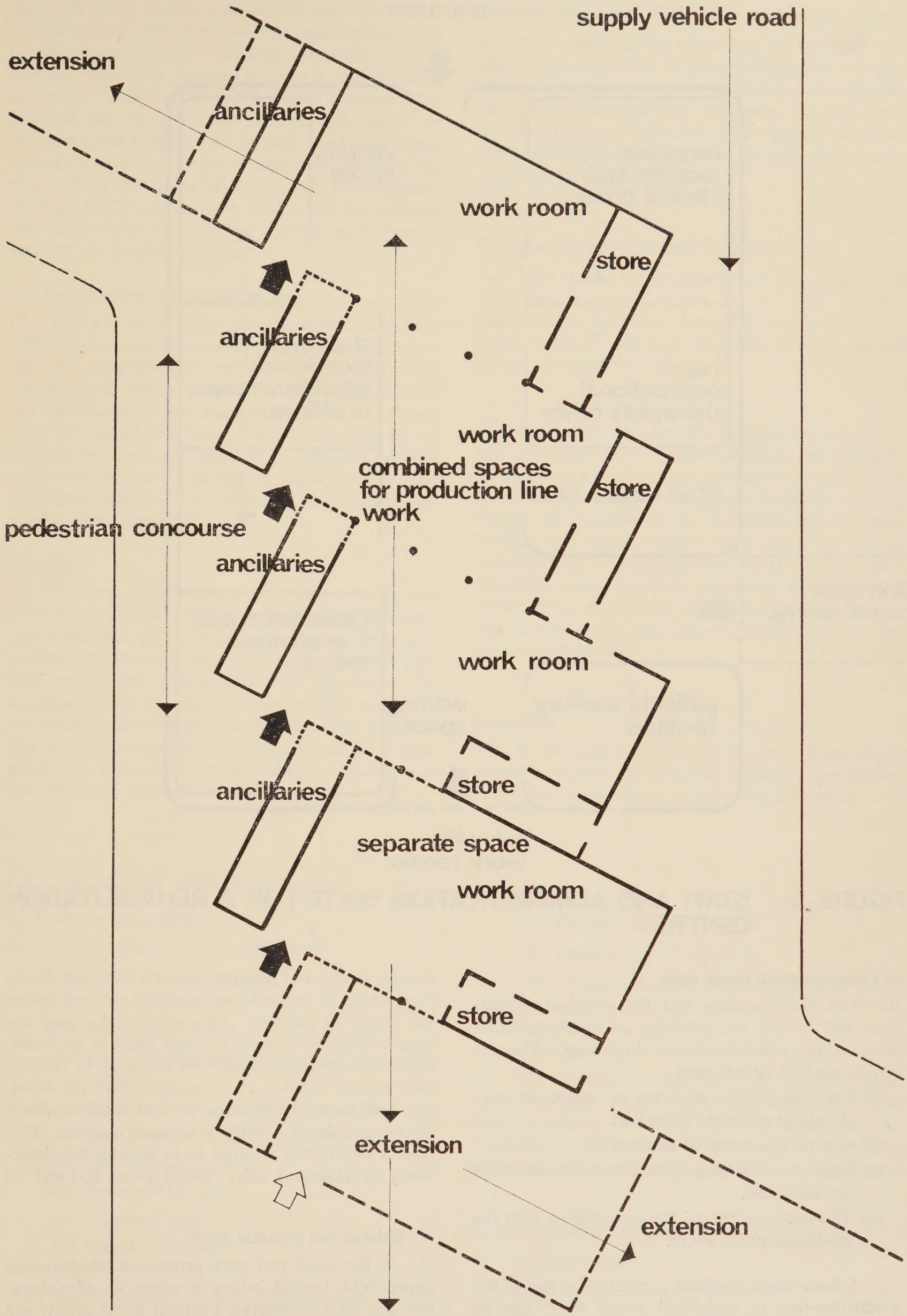


FIGURE 2 DEVELOPMENT ALLOWING FOR EITHER "PRODUCTION LINE" OR "SINGLE ROOM" ACTIVITIES

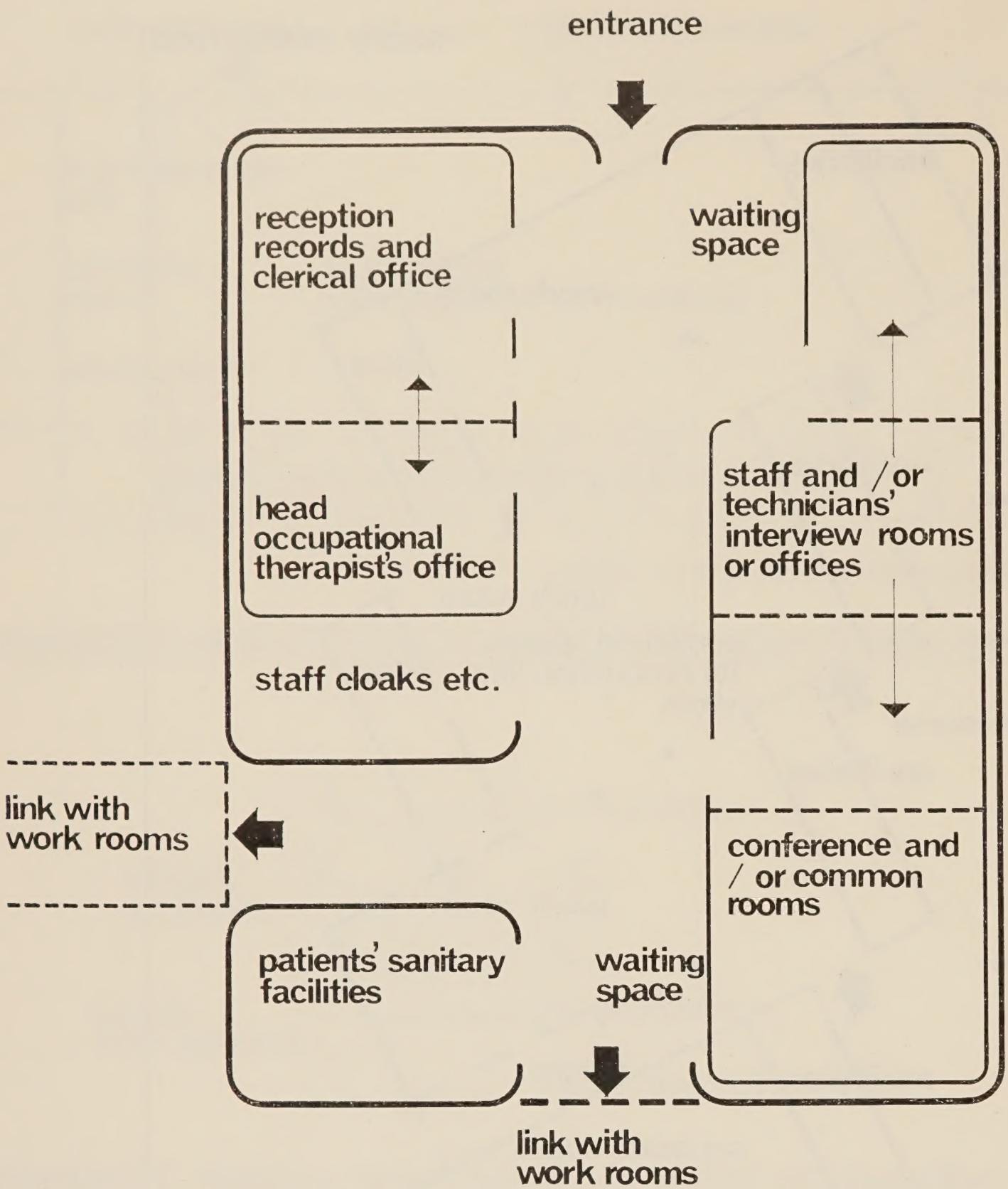


FIGURE 3 STAFF AND ADMINISTRATION SUITE FOR A REHABILITATION CENTRE

(i) **Comprehensive single area**

10. This Note assumes that the principal requirement will be for the provision of a rehabilitation centre within a comprehensive single area. This has certain obvious advantages:

(*a*) The sub-division of space by means of non-structural partitions is flexible.

(*b*) Growth can easily be allowed for.

(*c*) Supervision is simple, and staff/patient ratios are adaptable.

(*d*) The unit can be quickly constructed with the minimum of site works.

11. A large single structure is required so that either production-line or individual group work can be undertaken. Some of the main staff, administration, and ancillary rooms should be grouped near the main entrance. Rooms for supervisors and technicians, stores, and patients' sanitary facilities should be arranged in repetitive units related to work spaces for about 30 patients. This reduces the need for large circulation areas at any one point in the building. The structure should be designed to provide even natural lighting at all points within the building, and there should also be low level windows, where possible, to provide a pleasant outlook. This type of structure is assumed to be suitable for single-storey development only. (See Figures 1(*a*) and 2.)

(ii) **Related but separate areas**

12. In the larger and more permanent rehabilitation centres with limited industrial scope, an administrative unit (and if required a central stores depot) will be required to manage a number of workrooms grouped round it as separate structures (single- or multi-storey). The network of corridors, paths, and

roads to these workrooms should stem from the administration unit and should be open ended so as to allow for expansion. The workrooms may vary in size and should be capable of growth and multiple grouping. This arrangement provides a strong focal point at the administrative unit, through which all personnel and supplies can be controlled, and where specialists such as the head occupational therapist (or other officer in charge of the centre), psychologists, medical and social workers, and industrial advisers can have offices, interview rooms and clerical services. (See Figures 1(*b*) and 3.)

(iii) **Independent, self-sufficient areas**

13. Rehabilitation rooms may be designed as self-sufficient units comparable to those described above, but each containing its own office(s) and staff and patient cloaks/sanitary ancillaries. This type of room has advantages when a centre is being developed from very small beginnings without the need for an administrative unit, or when some groups of patients are unable to attend a centre, e.g. for security reasons or where patients are associated with admission wards. (See Figure 1(*c*).)

Security

14. The extent to which it is necessary to provide security conditions for some patients varies, but every endeavour should be made to avoid an oppressive atmosphere. Patients should not be kept in one confined area unless this is absolutely essential. The accommodation for these patients should not be in the rehabilitation centre but specially fitted rehabilitation room(s) should be provided, linked with their wards. A description of the room(s) is included in the additional accommodation (para. 46).

Mentally subnormal physically handicapped patients

15. In a rehabilitation centre for the mentally subnormal the proportion of those patients who are also physically handicapped may warrant a predominantly single-storey development. However, provided there is adequate accommodation on the ground floor for the handicapped patients, two- or even three-storey buildings may be developed.

Transport of materials and finished articles

16. Lifts should not be installed and in multi-storey buildings the work should be arranged so that rehabilitation activities involving the handling of bulky materials and finished articles are not carried out on the upper floors.

17. The supply of materials to rehabilitation rooms and the collection of finished products will normally be done from loading bays related to a road system for vehicles. The circulation and access for vehicles should be considered in the development plan. Trucks and other vehicles may reach the centre directly from a public highway or, at centres within hospitals, may approach from the hospital main entrance via an internal circulation route. Parking and turning space must also be considered with the vehicle circulation.

Inspection

18. In all cases the advice of the local Inspector of Factories should be obtained on safety precautions and other requirements of industrial legislation.

III. List of rooms

A. Basic accommodation

19. (*a*) *Administration and staff rooms*

(i) Entrance

(ii) Waiting space

(iii) Reception, records and clerical office

(iv) Head occupational therapists's/manager's office

(v) Interview room(s)/technicians' office(s)

(vi) Staff common/discussion room

(vii) Staff sanitary facilities

(viii) Patients' rest room

(ix) Cleaners' room

(x) Circulation space

(*b*) *Rehabilitation rooms (or workrooms)*

(i) Rehabilitation room(s) including supervisor's or technician's enclosure(s)

(ii) Materials and finished products stores

(iii) Patients' sanitary facilities

(iv) Loading bay (if required)

(v) Circulation space (including covered ways)

Functional unit

20. The functional unit selected for the basic accommodation in this Note and the related cost Note (supplied herewith as an addendum to Appendix E to Building Note No. 2) is the fully occupied workplace during normal working hours.

B. Additional accommodation

21. (*a*) Dining space.

(*b*) Servery/tea bar.

(*c*) Covered outdoor work space.

(*d*) Extra sanitary facilities.

(*e*) Rehabilitation room(s) for security patients.

IV. Description of rooms

A. Basic accommodation

(*a*) *Administration and staff rooms*

(i) *Entrance*

22. This should be related to the approaches to the centre and designed to provide a focal point of entry for all new patients and visitors from outside the hospital. There should be double doors and a draught lobby and some provision for a display area and a permanent sign-board and notices.

(ii) *Waiting space*

23. Informal groups of chairs and occasional tables should be arranged in the waiting space near reception, the head occupational therapist's office, and the interview rooms. These should open off the main circulation space. (See Figure 3.)

(iii) *Reception, records and clerical office*

24. This should have a counter or hatch opening on to the waiting space near the entrance. The office should be easily accessible to the head occupational therapist and the interview rooms. It should be equipped with desks and chairs for the reception and clerical staff, shelves and/or banks of filing cabinets for patients' records, and administrative documents.

(iv) *Head occupational therapist's/manager's office*

25. This may be used for interviewing small groups of patients, and as an administrative office for the rehabilitation centre. It should be equipped with desk or table and chairs, book shelves, filing cabinet, and a small safe.

(v) *Interview room(s)/technicians' office(s)*

26. These should be equipped with a desk or table and several chairs, book shelves and filing cabinets.

(vi) *Staff common/discussion room*

27. This should be equipped with tables and chairs, which can be grouped for formal meetings, a few lounge chairs, and shelves.

(vii) *Staff sanitary facilities*

28. Provision should be made for 1 w.c. and 1 lavatory basin for up to 12 members of each sex. Space will also be required in an ante-room for changing into overalls and keeping top coats etc. during working hours. One steel locker (approx. 1 ft. 3 ins. square by 5 ft. high) should be allowed per staff member.

(viii) *Patients' rest room*

29. A rest room containing a chair and couch will be necessary for any weaker patient who quickly tires.

(ix) *Cleaners' room*

30. A cleaners' room is required with a bucket sink with hot and cold water, drainer, and space for mechanical cleaning equipment, cleaning utensils etc.

(x) *Circulation space*

31. Corridors should be at least 7 ft. wide in the clear.

(*b*) *Rehabilitation rooms (or workrooms)*

(i) *Rehabilitation room(s) including supervisor's or technicians' enclosure(s)*

32. These rooms should provide multi-purpose work spaces, either partitioned for groups of say 15 or 30 patients, or combined to allow production line work for 60 or more patients. The internal circulation space, linking all parts of the building, may be added to the work areas without separate partitions. Where some patient groups or particular activities need to be separate (e.g. for reasons of noise, dust, etc.) the through circulation may be partitioned from the work areas. In such cases it may be necessary to provide independent external access to the work area. Circulation of materials should be arranged separately and should link the work areas to the stores and vehicle loading points. The stores may be arranged to divide the workroom into separate spaces or be grouped at points convenient to the supply, working, or despatch of materials. They should occupy those areas where natural light and ventilation are not at a premium. The plan of a workroom should be developed within the structure so that extensions to the building may be made, by the addition of repetitive bays at either end, without interrupting the main working areas. Where a model flat is required, for training in home-making etc., the free placing of non-structural partitions on the floor should be possible, although positions for these will necessarily comply with any dimensional discipline which may be imposed by the structural elements and fenestration. Finishes generally should be resistant to abrasion and easy to clean, but care should be taken to avoid undue harshness of glare and resonant echoes created by highly reflective surfaces. A standard specification for finishes can be assumed to be suitable for the large majority of medium and light industrial activities. Special provisions may be necessary for rooms where particularly heavy materials are used.

33. Each rehabilitation room should have a separate space allocated for the supervisor or technician in charge; an allowance for this is included in the work space (see Appendix). There should be sufficient room for a desk or table with drawers, a clothes locker and shelves. This should be sited to provide the occupant with a view of the patients' working area.

(ii) *Materials and finished products stores*

34. The amount of storage space and fittings such as shelves, racks, or bins, should be adaptable to the needs of individual rehabilitation rooms. Where stores are required non-structural partitions within rehabilitation rooms may be erected so that areas are capable of adjustment. The storage needs of individual rooms are not likely to change quickly and the selection of partitioning and fittings for stores should give priority to low cost (both in capital and maintenance) rather than to speed of adaptability.

35. An alternative method of providing storage space is to have a central storage depot and smaller local ones. The areas shown in the Appendix are the total amounts for all types of stores.

(iii) *Patients' sanitary facilities*

36. These should be decentralised into units related to pairs of rehabilitation rooms or groups of about 30 patients of each sex. These units should be sited to avoid circulation problems when they may be required by groups of patients (e.g. at the beginning and end of training classes etc.). It may also be necessary to provide direct communication from the workrooms to the sanitary facilities. The sizes of compartments, door design etc., should conform with other sanitary provisions for the severely subnormal.

37. The planning of the sanitary facilities for subnormal patients should allow for 50 per cent additional w.c.'s and lavatory basins in those sections where the more severely subnormal patients are training. Provision for this increase is made in the additional accommodation (para. 44).

(iv) *Loading bay* (if required)

38. Rehabilitation rooms with a large turnover in supply and delivery of materials should have a paved area preferably sheltered by a canopy, where supply vehicles can load and unload. Ramps and loading platforms to suit the tail-board height of lorries should be considered under additional accommodation or outside works.

(v) *Circulation space* (including covered ways)

39. Circulation space within rehabilitation rooms has been referred to in paragraph 32.

B. Additional accommodation

(*a*) *Dining space*

40. A dining space may be required for day patients and in centres where it is convenient to provide meals at the patients' place of work. A space should be planned within the normal form of a rehabilitation room. An allowance should be made of 14 sq. ft. per patient. Normally meals will be provided from the central kitchen and will be served at the servery/tea bar.

(*b*) *Servery/tea bar*

41. This is required adjacent to the dining space and will be comparable in function to ward pantries. The area for up to 40 day patients requiring meals should be 120 sq. ft. Where the number of day patients exceeds 40, the area may be increased up to a maximum of 240 sq. ft. If central wash-up facilities are not available an extra 80 sq. ft. may be added. Where meals are required at exceptional hours, a cooker and storage space should be provided, but numbers of patients requiring these are not expected to be large.

(*c*) *Covered outdoor work space*

42. Many occupations, including those associated with the building industry (e.g. precast concrete work, rough timber work, fencing etc.) and agriculture, require covered open-air work space. Where this is provided it should be on hard standing properly laid to falls and drained. Some vertical sheeting may also be required between columns on the weather side, to protect materials and workers from wind and rain.

(*d*) *Extra sanitary facilities*

43. Some sanitary facilities may be required for patients who may be waiting for interview etc., particularly in a separate administration unit as described in paragraph 12. (See Figures 1(*b*) and 3.)

44. As mentioned in para. 37 the sanitary facilities related to the rehabilitation rooms should be capable of a 50 per cent increase in numbers of w.c.'s and lavatory basins when they are for patients who are more severely physically handicapped or of a lower mental grade than usual. The doors to these w.c.'s should open outwards and be wide enough for wheelchairs to pass through. There should be handrails beside the w.c.'s.

45. Where additional staff (female students etc.) are to work in the centre the staff sanitary and cloakroom provisions should be increased.

(*e*) *Rehabilitation room(s) for security patients*

46. In wards where there is a need to provide security, the rehabilitation rooms may have to be sited with the ward units, although there are therapeutic advantages to the patients leaving their ward to go daily to work to another part of the hospital complex. Access may be by covered way or via courtyard(s) which are within a secure perimeter. The provision of space and circulation will be the same for these patients as within the rehabilitation centre. Special design treatment of doors, windows and all finishes, and safety precautions in respect of engineering services will need to be assessed against the type of patient, and the degree of security required.

V. Engineering services

47. Engineering services should be so designed and installed as to ensure the minimum interruption of services and disturbance to the working of the department when repairs and maintenance are being carried out.

48. In designing the engineering services it is important to select equipment of a type which cannot harm the patient or alternatively to provide protection for the equipment. Projecting fitments and equipment should be avoided as far as practicable.

49. Facilities should be provided for the easy installation of meters should they at any time be required.

50. Fire protection of the building may influence the design of engineering services, especially ventilation schemes. Due regard should therefore be given to these requirements in the early stages of design.

Mechanical services

Heating

51. The heating system should be designed for intermittent operation* and space heating requirements should be calculated on the following room temperatures and ventilation rates based on an outside temperature of 30°F.

	Temperature	*Air changes per hour*
Reception, offices, interview rooms, staff common/discussion room, rehabilitation rooms (workrooms), supervisor's or technicians' enclosures, patients' rest room and dining space	65°F	2
Servery/tea bar	60°F	up to 5
Entrance	60°F	3
Sanitary facilities, waiting space, circulation spaces, and cleaners' room	60°F	2
Stores	50°F	½

52. These requirements can usually be met by a conventional hot water system with radiators, or convectors. These have comparatively low installation and running costs. Recessed radiators are to be preferred, but exposed surfaces must not be so hot that patients may be burned and for this reason convectors may be more suitable. Recessed fan-assisted convectors, thermostatically controlled, may be provided in entrances and stairways.

53. Where there are roof lights, clerestoreys and roof vents, the heating system should be designed to prevent cold down-draughts from them. Exposed heated piping at high level should not be used however: a better alternative is to have embedded coils or flush panels in the sides of the openings.

* See the "Guide to Current Practice" of the Institution of Heating and Ventilating Engineers.

54. Heating units should normally be placed against exposed walls and under windows, with enough space beneath them to allow domestic cleaning appliances to be used.

55. Wall space in rehabilitation rooms (workrooms) may be taken up by machines, benches, etc., and in addition to making it difficult to accommodate the heating units on exposed walls, particularly below windows, they may lose their effectiveness and be inaccessible for maintenance and cleaning. For these reasons in the rehabilitation rooms planned for industrial activities (i.e. workshops) unit heaters may be suitable and for others ceiling heating may be preferred.

56. Ceiling heating systems should conform to the recommendations of the Medical Research Council's Environmental Research Unit. These may be found in the "Guide to Current Practice" of the Institution of Heating and Ventilating Engineers.

57. Electric heaters will not normally be required but where they are provided and where patients can come into contact with them, the heaters should have low surface temperatures or be suitably guarded, the electric elements being totally enclosed.

58. Electric off-peak floor heating may be suitable but should not be provided without careful consideration of the characteristics of this form of heating and the particular conditions.

Ventilation

59. Natural ventilation will normally suffice. A simple mechanical extract system should be provided in the servery/tea bar; mechanical ventilation in rehabilitation rooms (workrooms) for the removal of fumes, vapours or dusts, etc., potentially dangerous to health or otherwise objectionable, will need special consideration. Any internal rooms should be mechanically ventilated to suit their individual requirements. Internal lavatories should have mechanical extract ventilation.

60. External discharges should be carried clear of the building and protected against back pressure from the wind. Air inlet grilles are necessary where the ventilation is mechanical extract only.

Hot, cold and drinking water services

61. These are normally provided by connection to the mains services of the hospital.

62. Hot water storage capacity should be based on meeting the maximum requirements for two hours, and the rating of the calorifier battery should be

calculated on a three-hour recovery period, making due allowance also for the heat losses from the mains. Cold water storage should be sufficient for 24 hours' requirements.

63. Drinking water taps supplied direct from the water supply undertakings mains should be provided in the dining space, servery/tea bar and toilets; a drinking water tap conveniently situated and readily available to the rehabilitation rooms (workrooms) may also be required. Drinking water need only be provided in rehabilitation rooms (workrooms) where potable water is required.

64. Pillar taps should normally be provided, but spray mixing taps have advantages for lavatory basins en suite with w.c's. in that consumption is reduced and the water temperature can be controlled.

Gas

65. Gas points should be regarded as a potential hazard and only provided in those rehabilitation rooms (workrooms) and work spaces where it is essential to the work process. A gas supply may also be required in the dining space and servery/tea bar.

Fire alarms and fire fighting equipment

66. Information on fire alarms and extinguishers is given in B.S. Codes of Practice and in the Ministry's circular HM(56)36, Hospital Fire Precautions. Advice on, and approval of, the fire fighting equipment and installation proposed should be sought from the local fire authority.

Electrical installation

67. The electrical installation will include wiring and equipment for lighting, power, emergency electrical services, telephones and clocks.

68. In areas to which patients have access, special consideration must be given to safety in the selection and positioning of electrical fittings, accessories, equipment and appliances; cord pull switches are not recommended. Any electric power tools provided in rehabilitation rooms (workrooms) must be supplied at low voltage (50 volts). A suitable range of 50 volt power tools is available.

Supply and distribution

69. The electrical supply will normally be provided by a sub-main circuit from the main intake and distribution centre. Local distribution boards should be sited to minimise the length of circuit wiring. They should be easily reached from a standing position and housed in ventilated locked cupboards, preferably accessible from corridors; boards not in locked cupboards should be fitted with locks. H.R.C. fuses are recommended and in addition to the provision for spare ways and fuses, space should be allowed for future additional units.

70. Electrical distribution in the rehabilitation rooms (workrooms) should be designed to achieve a reasonably flexible service to allow machine lay-outs to be changed with a minimum of rewiring.

71. For rehabilitation rooms (workrooms) planned for industrial training activities, a three-phase supply is likely to be required and this may also be needed in the covered outdoor work space. Stop/start buttons are usually provided on the machines, but, in addition, each room should have emergency stop buttons suitably disposed around the room to cut off the supply to the power circuits in the room. A master control fitted with a lock for these power circuits should be located in the supervisor's or technicians' enclosure. A low voltage supply (50 volts) should also be provided in these rooms and in the covered outdoor work space. An extra low voltage supply (24 volts) may also be required.

Wiring

72. Conduits and cables should normally be concealed, service ducts being provided where practicable and external wiring either P.V.C. cables in galvanised screwed conduit or M.I.M.C. cables. Special consideration should be given to avoid excessive " volt drop " in the sizing of cables for the 50 volt and extra low voltage (24 volt) supplies.

Lighting

(i) *General*

73. Lighting should follow standard modern practice: tungsten lighting is generally suitable, but fluorescent lighting may be preferred where higher intensities are required for long periods and in some working areas. The stroboscopic effect of fluorescent lighting must be avoided where there is moving machinery, and special fluorescent tubes will be required where colour identification is necessary.

74. Recommended average values of illumination (3 ft. above floor level) are as follows:

	Average lumens/sq. ft.
Rehabilitation rooms (workrooms), servery/tea bar, entrance and staff common/discussion room	20
Covered outdoor work space ...	15*
Reception, offices and enclosures ...	15
Dining space and patients' rest room	10
Waiting space, circulation spaces, sanitary facilities and cleaners' room	7†*
Stores and loading bay	5*

* Standard given is at floor level.

† This figure may be increased where adjacent intensities are high.

(ii) *Special lighting*

75. In the rehabilitation rooms (workrooms) lighting to suit the layout of machines and/or processes, to the standard recommended for the best industrial installations, must be provided.

76. Higher general illumination will be required over demonstration areas and any chalkboard should have a vertical illumination at least equal to the horizontal illumination of the area.

77. Bench and other adjustable fittings should be avoided but where they are necessary they should be supplied at extra low voltage (24 volts).

78. Lighting in the dining space, staff common/discussion room, waiting space and entrance space should be selected to give a pleasing effect. Corridor fittings should be of the enclosed type. Staircase lights should be sited for easy cleaning and maintenance and the switch positions for them carefully selected. Local lighting, machine lights and chalkboard lighting should be separately switched.

(iii) *Socket outlets*

79. In each room, except in rehabilitation rooms (workrooms) planned for industrial training activities, sufficient 13A. switched shuttered outlets connected to ring or spur circuit should be provided to allow all appliances which are likely to be in use at one time to be supplied from a separate outlet.

80. In the rehabilitation rooms (workrooms) planned for industrial training activities, all socket outlets should be supplied at extra low voltage and incorporate a switch; there should be sufficient outlets to allow each portable tool or other item of portable equipment which is likely to be in use at one time to be supplied from a separate outlet. Socket outlets and plugs used on extra low voltage circuits should be non-interchangeable with those used on mains voltage circuits.

81. Fixed appliances rated up to 13A. should be permanently connected to 13A. fused spur boxes. Appliances rated in excess of 13A. should be permanently connected to separate final sub-circuits and independently switched.

82. Indicating lights to show when the electrical supply is switched on should normally be incorporated in non-luminous heating appliances. See Hospital Technical Memorandum No. 8, Safety Code for Electro-medical Apparatus. Where this is not so a green or alternatively a plain neon lamp behind a clear lens may be required in the socket outlet or plug top.

83. 13A. socket outlets should be sited to allow for the convenient use of domestic cleaning appliances having a flexible lead assumed to be 30 ft. long.

84. The following socket outlet distribution is suggested:

Offices and staff common/discussion room	1 twin mains voltage outlet
Servery/tea bar Dining space	Main voltage socket outlets to suit number of appliances plus one or two extra.
Rehabilitation rooms (workrooms)	
Industrial	Extra low voltage outlets to suit number of appliances plus one or two extra.
Non-industrial	Mains voltage outlets to suit number of appliances plus one or two extra.

Emergency electrical services

85. Guidance on the provision of emergency electrical supplies is given in Hospital Technical Memorandum No. 11, Emergency Electrical Services.

86. An emergency electrical supply will not normally be required but battery operated lanterns may be provided for use in an emergency.

Radio

87. Radio facilities should be provided giving a choice of two stations, either from the hospital distribution system or an independent central system with loudspeakers in rehabilitation rooms (workrooms) for light music programmes. Circuits to each rehabilitation room (workroom) should be separate and switched from the supervisor's enclosure, the main controls being either in the manager's office or other convenient place where they cannot be readily interfered with. Loudspeakers having a pre-set volume control should be mounted at high level.

Telephones

88. Telephone facilities for internal and external calls will form part of the hospital system, and desk pattern telephones will normally be provided in the head occupational therapist's/manager's office, reception and technicians' offices. A public G.P.O. telephone booth or kiosk may be provided in the waiting space.

89. Conduit and trunking for telephone cables should be concealed.

Electric clocks

90. Electric clocks will normally be required in the staff common/discussion room, waiting space and rehabilitation rooms (workrooms).

Incinerators

91. Where it is impracticable to make use of the main hospital incinerator one incinerator for the centre is better than several, on safety grounds.

Machine tools

92. Machines should be securely fixed, where necessary on specially prepared bases or anti-vibration mountings, fitted with effective guards and permanently wired; integral lighting fittings must be supplied at extra low voltage (24 volts).

APPENDIX

Foreword

The types of work and training undertaken will vary according to the particular conditions in each area. The following are typical examples of occupations which can be grouped according to their minimum space requirements. The buildings for all of these groups can be structurally identical although the fixtures, fittings, and finishes would be related to the designated activities.

Group A. Allow approximately 40 sq. ft. per work place.*

Assembly work. This may include assembling advertising material or cartons, capping tubes and bottles, or simple assembly of metal parts, etc.

Packing. The packing of articles into boxes, cartons; filling jars, bags or tins etc., e.g. compost packing.

Shoe repairing. The necessary machinery should be sited apart from the power tools used in the woodwork section. Shoe rack storage will be needed.

Group B. Allow approximately 50 sq. ft. per work place.*

Fettling. The final finishing of small manufactured articles, usually metal.

The manufacture of small articles in plastic.

Painting, either on sub-contract jobs or articles made in the workshops.

Metal Work. Wrought iron work and ornamental metal work may be undertaken as well as mass production of small metal parts using capstan lathes, jigs, etc. In special cases a small forge for welding equipment may also be necessary.

Group C. Allow approximately 60 sq. ft. per work place.*

Woodwork. This may range from training in the use of tools to making furniture and packing cases or repairing articles such as furniture and toys. Provision should be made for power driven tools including lathe, circular saw, and planing machines. Wall benches are needed in addition to freestanding carpentry benches. In most cases workshops will be organised on a production line basis.

*These areas are intended to include for local storage and circulation space within the workroom but not for staff accommodation.

APPENDIX (continued)

Recommended areas for rooms in basic accommodation

A. Basic accommodation	*Notes and sizes of certain rooms*		*Numbers of fully occupied work places during normal working hours (NOT the number of patients in the hospital)*									
			60	90	105	120	150	165	195	255	300	345
			Square feet/Number of rooms required									
(*a*) *Administration and staff rooms*												
(i) Entrance		sq. ft.	60	60	60	90	90	90	90	120	120	120
(ii) Waiting space	Associated with head occupational therapist's and interview rooms	sq. ft.	120	120	160	200	240	280	320	320	320	350
(iii) Reception, records and clerical office		sq. ft.	120	120	180	180	240	240	240	240	240	300
(iv) Head occupational therapist's/manager's office		sq. ft.	150	150	170	170	170	200	200	200	200	200
(v) Interview room(s)/technicians' office(s)	120 sq. ft.	Number reqd.	1	1	2	2	2	3	3	3	3	4
(vi) Staff common/discussion room ..		sq. ft.	150	150	200	200	250	250	250	250	250	300
(vii) Staff sanitary facilities	1 w.c. and 1 l.b. per 12 staff of each sex											
(viii) Patients' rest room	110 sq. ft.	Number reqd.	1	1	1	1	1	1	1	1	1	1
(ix) Cleaners' room	50 sq. ft.	Number reqd.	1	1	1	1	1	1	1	1	1	1
(x) Circulation space												
(*b*) *Rehabilitation rooms (or workrooms)*												
(i) Rehabilitation room(s), including space for supervisor's or technicians' enclosure(s)	Total area	Group A	2,200	3,300	3,850	4,400	5,500	6,050	7,150	9,350	11,000	12,650
		Group B	2,800	4,200	4,900	5,600	7,000	7,700	9,100	11,900	14,000	16,100
		Group C	2,900	4,350	5,075	5,800	7,250	7,975	9,425	12,325	14,500	16,675
(ii) Materials and finished products stores	Total area	Group A	600	720	840	960	1,200	1,320	1,560	2,040	2,400	2,760
		Group B	700	810	945	1,080	1,350	1,485	1,755	2,295	2,700	3,105
		Group C	900	1,080	1,260	1,440	1,800	1,980	2,340	3,060	3,600	4,140
(iii) Patients' sanitary facilities	In association with workrooms. 1 w.c. and 1 l.b. per 10 patients in separate groups for 30 patients. (For subnormal patients an allowance of 50 per cent increase on this number of fittings may be required. For male patients two urinals may be substituted for one w.c.)											
(iv) Loading bay (if required)	Covered and paved area adjacent to stores	sq. ft.	200	200	250	250	250	300	300	400	500	600
(v) Circulation space (including covered ways where required)												

l.b. = lavatory basin.

Hospital Building Note No. 2 — Appendix E.

Rehabilitation Centre for Psychiatric Patients

Hospital Building Note No. 33

The scales of accommodation and recommendations are applicable to rehabilitation centres for 60 or more work places in all types of hospitals.

A. Basic accommodation

(*a*) *Administration and staff rooms*

(i) Entrance
(ii) Waiting space
(iii) Reception, records and clerical office
(iv) Head occupational therapist's/manager's office
(v) Interview room(s)/technicians' office(s)
(vi) Staff common/discussion room
(vii) Staff sanitary facilities
(viii) Patients' rest room
(ix) Cleaners' room
(x) Circulation space necessary for the above accommodation

(*b*) *Rehabilitation rooms* (*or workrooms*)

(i) Rehabilitation room(s) including supervisor's or technicians' enclosure(s)
(ii) Materials and finished products stores
(iii) Patients' sanitary facilities
(iv) Loading bay (if required)
(v) Circulation space necessary for the above accommodation

B. Additional accommodation

(*a*) Dining space
(*b*) Servery/tea bar
(*c*) Covered outdoor work space
(*d*) Extra sanitary facilities
(*e*) Rehabilitation room(s) for security patients

Circulation space

For the purpose of the provisional cost limit the area occupied by internal circulation space and internal walls and partitions represents, on average, the following percentage addition to the net floor area of the basic and additional accommodation in each of the undermentioned groups:—

	%
Administration and staff rooms, additional accommodation (excluding outdoor work space and dining space)	17½
Rehabilitation rooms	12½
Dining space	
Outdoor work space	Nil

DEPARTMENTAL COST ALLOWANCES

1. Basic accommodation

Functional unit—the work place

For the first 60 places — Allow £23,400

For every additional 15 places — Allow £4,175

The above allowances provide for Group A working areas and storage for finished products.

Where a proportion of work places are Group B or Group C (working areas and storage for finished products) additional allowances should be made as follows:—

Group B—For every 15 work places—Allow £850

Group C—For every 15 work places—Allow £1,200

Example

Scheme for 90 work places comprising 60 Group A, 15 Group B and 15 Group C.

Basic accommodation	£
For the first 60 work places	23,400
For 30 additional work places 2 × £4,175	8,350
For 15 Group B work places	850
For 15 Group C work places	1,200
Total—Basic accommodation ..	£33,800

2. Additional accommodation

Cost of additional accommodation—allow £4 16s. 0d. per square foot except for the following:—

Additional sanitary accommodation — allow £6 0s. 0d. per square foot.

Rehabilitation room for security patients—allow £6 4s. 0d. per square foot.

Servery/tea bar—allow £7 15s. 0d. per square foot

Outdoor work space—allow £2 5s. 0d. per square foot.

Notes: Engineering

The following engineering services are included in 1 and 2 above and account for the percentages of the total costs tabulated below:

Mechanical

Heating (unit heaters in work spaces. Radiators or convectors elsewhere). Hot and cold water services. Gas supply to incinerator and work spaces. Fire fighting mains and sprinkler systems in the stores areas. Mechanical ventilation limited to internal rooms.

Electrical

Lighting includes fluorescent lighting where the average value is in excess of 10 lumens per square foot; power, general purpose socket outlets, low voltage socket outlets, clocks, telephones, radio, fire alarms, wiring for heating and ventilating services and sub-main to a central point. No allowance is made for sub-circuit wiring to machines in work spaces.

Equipment

Incinerator.

No allowance is included for workshop machines.

Note: First aid fire fighting equipment, e.g. hose reels, extinguishers, buckets etc. is Equipment Group IIa.

Additional accommodation

Costs include for engineering services as for basic accommodation but with the addition of catering equipment and associated services; embedded heating panels and special purpose lighting fittings in rehabilitation rooms for security patients.

Basic accommodation

Over 60 to and including 120 work places—22–24 per cent approximately.

Over 120 to and including 345 work places—20–22 per cent approximately.

Additional accommodation and rehabilitation room for security patients—22–24 per cent approximately.

Additional sanitary accommodation—37–39 per cent approximately.

Servery/tea bar—51–53 per cent approximately.

Outdoor work space—no engineering work included.

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